

I Claim:

- 1) A water saving dual flush system of valving for gravity flow toilet water-closets having in combination a flush actuation assembly, overflow pipe and discharge outlet therein, said system of valving comprising:
 - (a) a bottom valve having in combination, radially extended arms configured to mate pivotally to said overflow pipe, a disk portion disposed over said discharge outlet, and a port through said disk portion of said bottom valve,
 - (b) a tubular means of conveyance incorporated with said port,
 - (c) a means of floatation configured about said tubular means of conveyance,
 - (d) an upper valve disposed about the upper end of said tubular means of conveyance in a hinging manner consistent with operably allowing said upper valve to rotate between open and closed positions with respect to said tubular means of conveyance and,
 - (e) means of operably connecting said flush actuation assembly with said upper valve in connection with a means of floatation thereby allowing said means of flush actuation to operate said upper valve and said bottom valve thereby allowing selective water saving flush volume by virtue of the two independent valve operations.
- 2) The tubular means of conveyance of claim 1 wherein said means is a pipe having both an upper non-flanged end and a bottom flanged end.

- 3) The means of floatation configured about said tubular means of conveyance in claim 1 wherein said means of floatation is a floatation collar.
- 4) The upper valve of claim 1 wherein said upper valve is operatively attached to said tubular means of conveyance by connection to a valve seat sleeve having at least a upper valve seat and a means of attachment to said upper valve by hinging means.
- 5) A method of selectively controlling two pre-determined quantities of fluid flow through a single discharge outlet by means of a system of valving within a fluid body having in combination a discharge outlet, a means of valve actuation and a valve mounting structure, said system of valving comprising:
- (a) a bottom valve having means to secure its position within a contained fluid body in combination with said valve mounting structure whereby such positioning of said bottom valve is operatively positioned about said discharge outlet in a manner allowing said bottom valve to pivot between a closed and a open position in regard to said discharge outlet thereby allowing said bottom valve to be operable in controlling flow through said discharge outlet and,
 - (b) a port established through said bottom valve thereby allowing access to said discharge outlet by means of said port and said port having a upper valve positioned thereon in a manner that allows said upper valve to rotate operatively between an open and a closed

position with regard to said port thereby allowing said upper valve to be operable in controlling flow through said port and thereby through said discharge outlet and,

(c) a means of floatation established about said port in a manner whereby said bottom valve and said port in combination may be suspended in a fluid body thereby allowing said bottom valve to temporarily remain in its open position thereby allowing a pre-determined flow to be released through said discharge outlet and,

(d) a means of floatation operatively combined with said upper valve in a manner whereby said upper valve may be temporarily suspended in a fluid body thereby allowing said upper valve to remain open for a pre-determined volume of liquid to flow past said upper valve and through said port thereby entering said discharge outlet whereby in combination said system of valving by means of its connective relations, including said means of actuation, is able to regulate between two pre-selected quantities of fluid flow from a single volume of liquid controllably through a single discharge outlet.

6) A water saving dual flush system of valving for a water-closet having in combination a flush actuation system and a overflow pipe and a drain outlet therein, the system of valving comprised:

(a) A bottom valve comprising radially extended arms including means for pivotal attachment to said overflow pipe thereby establishing said bottom valve over said drain outlet and said bottom valve also having in combination a upper surface and a bottom surface in addition

- to having a port extending through the upper and bottom surfaces and,
- (b) a pipe having at least a upper and a bottom end is fitted within said port and mated thereto thereby establishing a conduit for flow of fluid through said pipe and said port in combination and,
- (c) a floatation collar is established about said pipe whereby said pipe in combination with said bottom valve may be suspended within the water-closet temporarily and,
- (d) a valve seat sleeve having at least a upper valve seat and a attachment arm for hinged connection is established about the upper end of said pipe and,
- (e) a upper valve having in combination upper and bottom surfaces and mating connective hinging structure enabling said upper valve to be established operably about the upper end of said pipe in connection with said valve seat sleeve and,
- (f) a operable connection between said flush actuation system and said upper valve and said bottom valve whereby said upper valve and said bottom valve may be selectively operated whereby the system of valving may operatively regulate predetermined quantities of water flow through said discharge outlet.
- 7) The bottom valve of claim 6 wherein said bottom valve is a flapper type valve comprised substantially according to industry standard size, shape, materials and execution except for having said port therein.